

**REMARKS**

Applicants thank the Examiner for indicating the presence of allowable subject matter in claims 3, 4, 9, 10, 12, 13, 15 and 16 and the allowance of claims 5, 6 and 17-23. Claim 3 has been amended to incorporate the features of claims 1 and 2. Claim 9 has been amended to incorporate the features of claims 7 and 8. Claim 10 has been amended to depend from claim 9. Claims 12 and 13 have been amended to include the features of claim 11. Claims 15 and 16 have been amended to incorporate the features of claim 14. Claims 13 and 16 have been further amended to correct informalities. Claims 1, 2, 7, 8, 11 and 14 have been cancelled.

Applicants note that the preliminary amendment filed on June 25, 2003, has not been entered. The Action of April 7, 2005, was based on an examination of the claims as originally filed on March 23, 2001. The PTO PAIR system also does not indicate entry of the preliminary amendment. Applicants have attached in an Appendix a copy of the preliminary amendment as originally filed as well as copies of the associated USPS date-stamped Express Mail label and PTO date-stamped return postcard. The Express Mail label indicates deposit on June 25, 2003, and the return postcard indicates receipt on July 7, 2003.

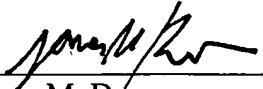
Applicants request that prosecution proceed with the originally filed and examined claims. Therefore, the presently filed amendments to the claims are based on the claims as originally filed. Applicants have attached a copy of the preliminary amendment in the interest of full disclosure and to ensure that the file history as maintained by the PTO is complete and accurate.

Early action allowing claims 3-6, 9, 10, 12, 13 and 15-23 is solicited.

In the event the U.S. Patent and Trademark Office determines that an extension and/or other relief is required, Applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing docket no. 577172000900.

Dated: July 6, 2005

Respectfully submitted,

By   
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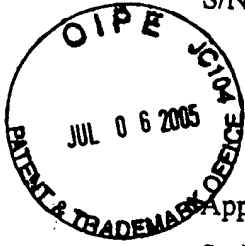
**PRELIMINARY AMENDMENT APPENDIX**

**DO NOT ENTER**

APPENDIX: DO NOT ENTER

S/N 09/816,906

PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Joel Gerard Hassel et al

Examiner:

Serial No.: 09/816,906

Group Art Unit: 2661

Filed: March 23, 2001

Docket: INTE.02USU1 (ITC3)

Title: RATE CONTROLLED INSERTION OF ASYNCHRONOUS DATA INTO A  
SYNCHRONOUS STREAM

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**PRELIMINARY AMENDMENT A**

Dear Sir:

Prior to examination, please amend the above referenced application as follows:

**Amendments to the Claims** are reflected in the listing of claims that begins on page 2 of this paper.

**Remarks** begin on page 9 of this paper.

IN THE

UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Joel Hassell, et al.

Serial No.: 09/816,906

Examiner:

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Title: RATE CONTROLLED INSERTION OF ASYNCHRONOUS DATA INTO A SYNCHRONOUS STREAM

COMMISSIONER FOR PATENTS,  
P. O. BOX 1450, ALEXANDRIA, VA 22313-1450

TRANSMITTAL LETTER FOR RESPONSE/AMENDMENT

Sir:

Transmitted herewith is/are the following in the above-identified application:

- (X) Response/Amendment "Preliminary Amendment A" ( ) Petition to extend time to respond  
( ) New fee as calculated below ( ) Supplemental Declaration  
(X) No additional fee (Address enveloped to "Box Non-Fee Amendments")  
( ) Other: \_\_\_\_\_

CLAIMS AS AMENDED BY LARGE ENTITY						
(1) FOR	(2) CLAIMS REMAINING AFTER AMENDMENT	(3) NUMBER EXTRA	(4) HIGHEST NUMBER PREVIOUSLY PAID FOR	(5) PRESENT EXTRA	(6) RATE	(7) ADDITIONAL FEES
TOTAL CLAIMS		MINUS		=	X \$18	\$
INDEP. CLAIMS		MINUS		=	X \$84	\$
[ ] FIRST PRESENTATION OF A MULTIPLE DEPENDENT CLAIM					+ \$280	\$
EXTENSION FEE	1ST MONTH \$110	2ND MONTH \$410	3RD MONTH \$930	4TH MONTH \$1450	\$	
TOTAL FEE FOR THIS AMENDMENT					\$	

- ( ) Attached is a check for \$ \_\_\_\_\_.  
( ) Please charge to Deposit Account 50-1491 the amount of \$ \_\_\_\_\_.

At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account 50-1491 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 50-1491 under 37 CFR 1.19, 1.20 and 1.21. A duplicate copy of this sheet is enclosed.

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P. O. Box 1450, Alexandria, VA 22313-1450

Date of Deposit: June 25, 2003

Signature: \_\_\_\_\_

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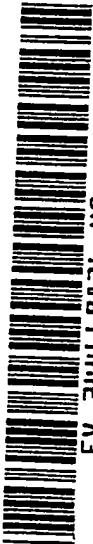
Respectfully submitted,

By: \_\_\_\_\_

William W. Cochran II  
Attorney/Agent for Applicant(s)  
Reg. No.: 26,652  
Telephone No.: (970) 377-6363

Date: June 25, 2003

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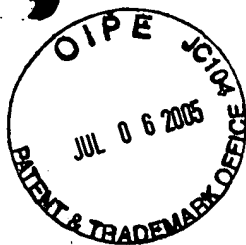
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Receipt is hereby acknowledged for the following in the U.S. Patent and Trademark Office:

In re Application of: Joel Hassell, et al.

For: RATE CONTROLLED INSERTION OF ASYNCHRONOUS DATA INTO A  
SYNCHRONOUS STREAM

Application No.: 09/816,906

Filed: March 23, 2001

Docket No.: INTE.02USU1 (ITC3)

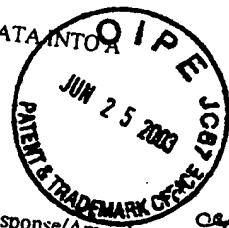
Mailed: June 25, 2003

Sent via Express Mail No. EV 344669826 US: Transmittal Letter for Response/Amendment (in  
~~duplicate~~) "Preliminary Amendment A", and this Return Receipt Postcard.

Patent

WWC

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## APPENDIX: DO NOT ENTER

### Listing of Claims

1. (currently amended) A method for inserting asynchronous data into a synchronous data stream comprising:
  - receiving information including a first point in time value when said asynchronous data may be used;
  - determining a transfer interval for said asynchronous data by performing a calculation that determines the file size of said asynchronous data, determines a data transfer rate for said asynchronous data, and divides said file size by said transfer rate to calculate a transfer duration;
  - adding any latency that may exist in the transmission of said asynchronous data to said transfer duration; and
  - inserting said asynchronous data into said synchronous data stream at a second point in time prior to said first point in time value by ~~an amount~~ a period of time that is ~~greater than or~~ at least equal to said transfer interval.
2. (currently amended) The method of claim 1 wherein said step of determining a transfer interval further comprises:
  - ~~determining the file size of said asynchronous data;~~
  - ~~determining a data transfer rate for said asynchronous data; and~~
  - ~~dividing said file size by said data transfer rate to calculate a duration.~~
  - using a bandwidth value equal to the isochronous rate assigned to metadata as said transfer rate.
3. (currently amended) The method of claim 2 1 wherein said step of determining a transfer interval further comprises:
  - determining the ratio of data stream bandwidth available for transfer of said asynchronous data; and
  - modifying said duration by multiplying said duration by the inverse of said ratio.



## APPENDIX: DO NOT ENTER

4. (currently amended) The method of claim 3 1 wherein said step of ~~modifying said duration~~ adding any latency that may exist further comprises:

obtaining a connect time; and  
adding said connect time to said duration.

5. (currently amended) A method for inserting first asynchronous data and second asynchronous data into a synchronous data stream comprising:

receiving information comprising a first point in time value when said first asynchronous data may be used and a second value point in time when said second asynchronous information may be used;

determining a first transfer interval for said first asynchronous data;  
determining a second transfer interval for said second asynchronous data;

and

commencing insertion of said first asynchronous data into said synchronous stream at a third point in time prior to said second point in time value by a period of time ~~greater than or~~ at least equal to the sum of said first transfer interval and said second transfer interval.

6. (currently amended) A method for inserting first asynchronous data and second asynchronous data into a synchronous television broadcast stream comprising:

receiving information comprising a first point in time value when said first asynchronous data may be used and a second point in value time when said second asynchronous information may be used;

determining a first transfer interval for said first asynchronous data;  
determining a second transfer interval for said second asynchronous data;

and

commencing insertion of said first asynchronous data into said synchronous television broadcast stream at a third point in time prior to said second point in time value by a period of time ~~greater than or~~ at least equal to the sum of said first transfer interval and said second transfer interval.

## APPENDIX: DO NOT ENTER

7. (currently amended) A method for inserting asynchronous data into a synchronous television broadcast stream comprising:
- receiving information including a first point in time value when said asynchronous data may be used;
  - determining a transfer interval for said asynchronous data by performing a calculation that determines the file size of said asynchronous data, determines a data transfer rate for said asynchronous data, and divides said file size by said transfer rate to calculate a transfer duration;
  - adding any latency that may exist in the transmission of said asynchronous data to said transfer duration; and
  - inserting said asynchronous data into said synchronous television broadcast stream at a time prior to said first time value by an amount that is greater than or equal to said transfer interval.
8. (currently amended) The method of claim 7 wherein said step of determining a transfer interval further comprises:
- ~~determining the file size of said asynchronous data;~~
  - ~~determining a data transfer rate for said asynchronous data; and~~
  - ~~dividing said file size by said data transfer rate to calculate a duration.~~
  - using a bandwidth value equal to the isochronous rate assigned to metadata as said transfer rate.
9. (original) The method of claim 7 wherein said step of determining a transfer interval further comprises:
- determining the ratio of data stream bandwidth available for transfer of said asynchronous data; and
  - modifying said duration by multiplying said duration by the inverse of said ratio.
10. (currently amended) The method of claim 7 wherein said step of ~~modifying said duration~~ adding any latency that may exist further comprises:

## APPENDIX: DO NOT ENTER

obtaining a connect time; and

adding said connect time to said duration.

11. (currently amended) A transmission system for ~~inserting asynchronous data into a synchronous~~ television broadcast stream comprising:

~~a database containing~~ asynchronous data;

~~an insertion controller containing a processor and program memory that~~  
inserts asynchronous data into a synchronous television broadcast stream; and

~~a software program code operating on said insertion controller operable to~~  
~~determine that calculates~~ a transfer interval for said asynchronous data and to  
~~commence that commences~~ insertion of said asynchronous data into said  
synchronous television broadcast stream at a first point in time greater than or  
equal to the duration of said transfer interval prior to a time when said  
asynchronous data may be utilized that is prior to a second point in time when  
said asynchronous data may be utilized by a period that is at least equal to said  
transfer interval, said program code calculating said transfer interval by  
determining the file size of said asynchronous data, determining a data transfer  
rate for said asynchronous data and dividing said file size by said data transfer  
rate to calculate a transfer duration.

12. (currently amended) The system of claim 11 wherein said ~~software~~ program code  
further comprises:

a first software routine ~~operable to determine that determines~~ a transfer  
rate based on total data stream bandwidth and bandwidth utilized by non-metadata  
transfers.

13. (currently amended) The system of claim 11 wherein said ~~software~~ code program  
further comprises:

a second software routine ~~operable to advance that advances~~ in time said  
commencement of said insertion of said asynchronous data by a period of time  
greater than or equal to a data access latency value.

## APPENDIX: DO NOT ENTER

14. (currently amended) A system for inserting asynchronous data into a synchronous television broadcast stream comprising:

a server containing asynchronous data;

an insertion controller that inserts said asynchronous data into said synchronous television stream; and

~~a software~~ program code operating on said server ~~operable to determine that calculates~~ a transfer interval for said asynchronous data and ~~to commence that commences~~ insertion of said asynchronous data into said synchronous television broadcast stream at a first point in time that is prior to a second point in time greater than or equal to the duration of said transfer interval prior to a time when said asynchronous data may be utilized by a period that is at least equal to said transfer interval, said program code calculating said transfer interval by determining the file size of said asynchronous data, determining a data transfer rate for said asynchronous data and dividing said file size by said data transfer rate to calculate a transfer duration.

15. (currently amended) The system of claim 14 wherein said ~~software~~ program code further comprises:

a first software routine ~~operable to determine that determines~~ a transfer rate based on total data stream bandwidth and bandwidth utilized by non-metadata transfers.

16. (currently amended) The system of claim 14 wherein said ~~software~~ program code further comprises:

a second software routine ~~operable to advance that advances~~ in time said commencement of said insertion of said asynchronous data by a period of time greater than or equal to a data access latency value.

## APPENDIX: DO NOT ENTER

17. (currently amended) A system for inserting asynchronous data into a synchronous television broadcast stream comprising:

a database containing first asynchronous data and second asynchronous data;

an insertion controller containing a processor and program memory; and

~~a software program code~~ operating in said insertion controller ~~operable to determine that calculates~~ a first transfer interval for said first asynchronous data and a second transfer interval for said second asynchronous data and ~~to commence that commences~~ insertion of said first asynchronous data into said synchronous television broadcast stream at a first point in time, ~~greater than or equal to the duration of the sum of said first transfer interval and said second transfer interval~~, prior to a second point in time when said second asynchronous data may be utilized by a period that is at least equal to the sum of said first transfer interval and said second transfer interval.

18. (original) The system of claim 17 wherein said synchronous data stream is an audio/video stream.

19. (currently amended) The system of claim 17 wherein said ~~software program code~~ further comprises:

a first software routine ~~operable to determine that calculates~~ a first transfer rate and a second transfer rate based on total data stream bandwidth and bandwidth utilized by non-metadata transfers.

20. (currently amended) The system of claim 17 wherein said ~~software program code~~ further comprises:

a second software routine ~~operable to advance that advances~~ in time said commencement of said insertion of said first asynchronous data by a period of time greater than or equal to the sum of a first data access latency value for said first asynchronous data and a second data access latency value for said second asynchronous data.

## APPENDIX: DO NOT ENTER

21. (currently amended) A system for inserting asynchronous data into a synchronous television broadcast stream comprising:

a server containing first asynchronous data and second asynchronous data;  
an insertion controller; and

~~a software program operating in said server operable to determine that~~  
calculates a first transfer interval for said first asynchronous data and a second transfer interval for said second asynchronous data and ~~to commence that~~  
commences insertion of said first asynchronous data into said synchronous television broadcast stream at a first point in time, ~~greater than or equal to the duration of the sum of said first transfer interval and said second transfer interval,~~ prior to a second point in time when said second asynchronous data may be utilized by a period that is at least equal to the sum of said first transfer interval and said second transfer interval.

22. (currently amended) The system of claim 21 wherein said ~~software program code~~ further comprises:

a first software routine ~~operable to determine that~~ calculates a first transfer rate and a second transfer rate based on total data stream bandwidth and bandwidth utilized by non-metadata transfers.

23. (currently amended) The system of claim 21 wherein said ~~software program code~~ further comprises:

a second software routine ~~operable to advance that advances~~ in time said commencement of said insertion of said first asynchronous data by a period of time greater than or equal to the sum of a first data access latency value for said first asynchronous data and a second data access latency value for said second asynchronous data.

## APPENDIX: DO NOT ENTER

### Remarks

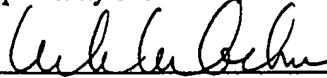
Claims 1-23 were originally presented for examination. Claims 1-8, 10-17, and 19-23 have been amended. Claims 1-23 are now presented for examination.

## APPENDIX: DO NOT ENTER

It is respectfully requested that the Examiner enter this amendment prior to examination of the application. The application as amended is believed to be in condition for allowance and such action is earnestly solicited.

Dated this 25<sup>th</sup> day of June 2003.

Respectfully submitted,



William W. Cochran

Attorney/Agent for Applicant(s)

Reg. No. 26,652

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